FREQUENTLY ASKED QUESTIONS

Schools and COVID-19

November 24, 2020

Introduction

These frequently asked questions and answers are intended to support local public health units (PHUs) in their work with schools and boards of education, and are based on questions received from PHUs.

This document will be updated periodically as answers to additional questions are received, answers are revised, or new resources become available.

This document should be used in addition to – but not as a replacement for – the advice, guidance, recommendations, directives or other direction of provincial Ministries and local public health units. Please refer to the Ministry of Health’s website for the most up to date guidance.

Additional resources related to COVID-19 and schools include:

- **Guide to Reopening Ontario’s Schools**¹ provides guidance for schools and school boards to safely reopen for the 2020/2021 school year.


- **COVID-19 Preparedness and Prevention in Elementary and Secondary (K-12) Schools**³ provides a checklist that can be used by elementary and secondary school administrators and PHU to help plan for, prevent, and detect COVID-19 in schools.

- **COVID-19 School Screening Tool**⁴ is an online tool that can be used for students, staff, and visitors prior to going to school.

- **Management of Cases and Contacts of COVID-19 in Ontario**⁵ supports PHUs in management of cases and contacts and **COVID-19 Guidance: School Outbreak Management**⁶ provides guidance to PHUs on how to investigate COVID-19 cases, outbreaks and suspected outbreaks in elementary and secondary schools.

- **The COVID-19 Reference Document for Symptoms**⁷ outlines the symptoms, signs and clinical features which have most commonly been associated with COVID-19.
Screening
This chapter addresses questions on screening of staff, students and visitors.

Q1. What proportion of COVID-19 infections in Ontario are among children?

Q2. Should schools do temperature screening of students/staff?

Q3. Should schools utilize oximeters for screening of students?
Q1. What proportion of COVID-19 infections in Ontario are among children?

As of October 13, 2020, those 19 years and younger represent approximately 9% of all COVID-19 infections in Ontario which is smaller relative to their proportion of the Ontario population (21.6%). This means the pediatric prevalence of COVID-19 may be difficult to determine, and is likely to be underestimated.

Q2. Should schools do temperature screening of students/staff?

Temperature screening of students and staff are not currently recommended in the Guide to Reopening Ontario’s Schools or Operational Guidance: COVID-19 management in schools. The added value of temperature checks as part of routine screening is unclear, and it could increase close contact when performed. If performed, temperature checks should be performed in a manner consistent with public health guidelines (e.g., no-touch thermometers by a person using a surgical/procedure mask and eye protection). No-touch thermometers are preferred and thermometers placed in the mouth should not be used. If ear thermometers are used, they should have disposable covers that are thrown out after each use.

Q3. Should schools utilize oximeters for screening of students?

Pulse oximeters, which are used to measure the saturation of oxygen in a person’s red blood cells, are not useful as a screening method for students in schools. Oximeters are used in patients with symptomatic respiratory illnesses to guide oxygen therapy and assess the risk of deterioration. Checking oxygen levels on asymptomatic children is unlikely to detect COVID-19, as a low oxygen level is not an early sign of disease or an isolated finding of COVID-19 in an otherwise well child. From a practical consideration, accurate pulse oximeter checks are challenging in children, as they require a child to sit still (for at least 10-15 seconds) to get an accurate reading. Falsely low values (from improper use) would likely be experienced more frequently than truly low readings. In addition, there are no “contactless” methods of pulse oximetry, which would create challenges for safely screening large numbers of children.
Transportation

This chapter addresses questions on school transportation.

Q1. What are recommendations for travel to school?

Q2. Do students need to wear masks on school buses if the windows are open?
Q1. What are recommendations for travel to school?

Active forms of travel (e.g., walking, biking) and/or private transportation by parents/caregivers are encouraged. If taking the school bus, students should be assigned a seat and a copy of the seating plan should be saved in order to facilitate contact tracing in the event of a confirmed COVID-19 case or outbreak. Where feasible, siblings and/or members of the same cohorts should take the same bus and be seated together, and schools should stagger bus drop-off times and/or staggered exit of students from school for bus loading.³

Q2. Do students need to wear masks on school buses if the windows are open?

School bus windows are recommended to be opened when possible (e.g., weather permitting and when safe to do so) in order to increase ventilation. This does not replace the need for students to wear masks while on the school bus. Students in grades 4-12 are required to wear a mask when boarding, while on the bus, and when exiting the bus. Students in kindergarten to grade 3 are encouraged to wear a mask.³
School Activities

This chapter addresses questions about various types of school activities.

Q1. How should teachers handle paper materials that are submitted by their students?

Q2. Are students able to use shared classroom supplies or personal items?

Q3. Can students bring personal items to school for their own use?

Q4. Can students participate in clubs and sports?

Q5. What are recommendations to prevent COVID-19 transmission when using playground equipment?

Q6. What are recommendations for students to participate in choir/band practices?

Q7. What are recommendations for students during periods of student movement in the school (e.g., in hallways, at lunch or recess)?

Q8: Do children need to physically distance from one another during recess?

Q9. What are recommendations for students and staff eating in school?

Q10. What is the advice for physical distancing, occupancy limits and masking in staff rooms, including staff lunch rooms and other common break areas?

Q11. What are recommendations for students as they transition from areas where masks are required (e.g., classroom) to an area where they are not (e.g., outside during recess)?
Q1. How should teachers handle paper materials that are submitted by their students?

Although it may be possible that people can get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose, or possibly their eyes (fomite transmission), this is not thought to be the main way the virus spreads. Some have suggested books and materials in libraries should be left in a dedicated space for 24 to 72 hours. The rationale for “quarantine periods” for materials is based on the theoretical risk of transmission and from observations made under controlled condition. The use of “quarantine periods” for materials (regardless of duration) has not been demonstrated to reduce transmission of COVID-19. Before and after handling shared items, individuals should perform hand hygiene.

Q2. Are students able to use shared classroom supplies or personal items?

Students should be encouraged to perform hand hygiene prior to and after using shared classroom supplies (e.g., scissors, pencil sharpener). Items that cannot be cleaned (e.g., puzzles, cards, stuffed animals, area rugs) should be removed from the classroom.

Q3. Can students bring personal items to school for their own use?

To minimize opportunities for sharing objects, students should limit personal items being brought into school and be reminded to avoid sharing food, drinks, and other personal items (e.g., phones, electronic games). Personal items (e.g., backpack, clothing, water bottles, food, etc.) should be labeled and kept in an area designated for the student (e.g., cubbies, lockers) and should not be handled by other students.

Q4. Can students participate in clubs and sports?

Clubs and/or organized sports are only offered in accordance with current provincial and local public health recommendations, as well as local board of education decisions. If sports/clubs are offered based on the decisions of the local board of education, physical distancing should be maintained and the use of shared equipment and/or spaces should be limited. Shared equipment and/or spaces should be cleaned and disinfected between cohort/group use. Outdoor sports and clubs are preferred over indoor sports to reduce transmission risk. If occurring indoors, activities should take place in large, well-ventilated areas. In general, among documented clusters in Ontario, COVID-19 transmission is predominantly in indoor settings rather than outdoor settings. The close proximity of individuals is hypothesized to facilitate transmission in both indoor and outdoor settings. Attention should be given around processes and behaviours associated with exercising/gym class itself (e.g., use of locker rooms, showers, towels, and water bottles; avoiding direct and close physical contact, such as high fives, handshakes, fist bumps, and hugs; avoiding spitting) with consideration of how to reduce person-to-person contact and spread of droplets.

Q5. What are recommendations to prevent COVID-19 transmission when using playground equipment?

Important protective measures to prevent the transmission of COVID-19 in playgrounds include hand hygiene (e.g., before and after playground use), limiting capacity (e.g., one school cohort at a time), and avoiding crowded playgrounds to maintain appropriate physical distancing, and wearing a mask when physical distancing is not possible. Signage to remind users of the personal measures they need to take may also be useful.
Q6. What are recommendations for students to participate in choir/band practices?

In-person choir and band practices or performances may pose an increased risk for COVID-19 transmission between participants. The assumption of increased risk is based on the likelihood that singing and playing wind/brass instruments (that require the user to breathe into them) generates respiratory droplets and/or aerosols. Other factors commonly associated with these activities are also likely to increase risk of transmission, such as prolonged close contact and touching common objects. The Ontario Music Educators’ Association has published a framework for music classes. Considerations include measures such as symptom screening, physical distancing, mask wearing if not singing or playing a wind instrument, cleaning of high touch surfaces, and holding activities outdoors. In addition, non-wind instruments such as piano, drums, and guitar likely pose a lower risk of transmission than singing or playing wind instruments, if other measures are maintained.

Q7. What are recommendations for students during periods of student movement in the school (e.g., in hallways, at lunch or recess)?

Schools are encouraged to facilitate physical distancing by staggering periods of student movement and using visual cues on the floors and/or walls that promote one-way flow of traffic (e.g., arrows taped on the floor or walls). Water fountains/dispensers are only to be used for filling drink bottles and should not be used to drink directly from; signage should be posted to note this. Students wearing masks should keep masks on as they move through common areas.

Q8: Do children need to physically distance from one another during recess?

Physical distancing is to be encouraged between cohorts wherever possible (including outdoors). Encourage activities that limit prolonged close physical contact between children within cohorts where practical.

Q9. What are recommendations for students and staff eating in school?

Lunch and nutrition breaks should be staggered and should occur in designated areas assigned for eating food (e.g., classrooms, staff rooms, outside if weather permitting). Clear instructions should be provided to students and staff on how to safely take off and store masks at lunch or other nutrition breaks, as well as putting masks back on after lunch or nutrition breaks. Non-medical face masks that need to be removed but are intended to be reused should be stored in a clean paper bag, envelope, or something similar that does not retain moisture. Hand hygiene is to be performed before and after touching their mask and eating. Students and staff should supply their own food and drink or drink bottle, and these items should be labelled and not shared. Food provided by third-party food service providers (e.g., cafeterias, student nutrition programs, lunch programs, “pizza parties” etc.), where feasible, should be offered in individual/grab-and-go options. If self-serve food items are provided, utensils are to be provided to minimize direct hand contact with food. Avoid the use of shared serving utensils and consider having a single individual plate food to avoid multiple persons handling common serving utensils.

Q10. What is the advice for physical distancing, occupancy limits and masking in staff rooms, including staff lunch rooms and other common break areas?

In staff rooms, staff should maintain physical distance at all times, including while eating or drinking. Occupancy limits with respect to COVID-19 should be based on the ability of staff to remain physically distant from one another and not on the square footage of the space. Masks should be worn in staff rooms, unless removed for eating and drinking when 2 metres physical distancing can be maintained.
Physical distancing will be influenced by the amount and layout of furniture within the space. Consider removing unnecessary furniture, placing markers on the floor for furniture placement to ensure distance of at least 2 metres apart, staggering the use of shared break areas, and signage to support physical distancing. Additional options may include additional designated areas for staff break/lunch rooms. If staff store their lunch or personal belongings in the staff room, strategies should also be used to avoid crowding and maintain physical distancing when accessing personal belongings.

Staff should be reminded to maintain 2 metres physical distance when taking breaks outdoors, especially when masks are removed for eating or drinking. If physical distancing may be difficult to maintain on outdoor breaks (e.g., when walking with other staff), masks should be worn.

**Q11. What are recommendations for students as they transition from areas where masks are required (e.g., classroom) to an area where they are not (e.g., outside during recess)?**

Students in Grades 4 to 12 are required to wear non-medical masks indoors in schools at all times, including when in hallways. Students in Kindergarten to Grade 3 are encouraged to wear a mask in all indoors spaces and there may be school board-specific requirements that require students of all ages to wear masks at all times indoors (provided they don’t have an exemption). As a result, students should wear the masks until they are outdoors, especially given the potential for crowding during transitions. Mask use is also encouraged at other transition times that may involve prolonged standing/waiting, and where it is not possible or practical to stay 2 metres apart (e.g., waiting outdoors in a group/line for the bus).

Schools are recommended to have a plan in place for how and where students will store their masks when not in use (e.g., a labelled paper bag or envelope or something similar that does not retain moisture and that can be stored safely). Clear instructions (e.g., signage in transition areas) should be provided to students and staff on how to safely take off, store, and put on masks when they are transitioning to areas that do not require masks. Hand hygiene should be performed before and after touching their masks.

Non-medical face masks that need to be removed but are intended to be reused should be stored in a clean paper bag, envelope, or something similar that does not retain moisture. Some schools have recommended the use of waist bags/fanny packs for storage so the masks can be kept on the students’ body during recess or outdoor time. Students should have alcohol-based hand rub accessible to clean their hands before reapplying their mask and returning inside the building.
Environmental Cleaning

This chapter addresses cleaning and disinfection.

Q1. How long can COVID-19 survive on surfaces?

Q2. How often should environmental cleaning be done for high-touch surfaces and shared spaces?

Q3. What are recommendations for cleaning outdoor school playgrounds?

Q4: Can wipes for liquid crystal display (LCD) screens and other types of monitors be used to clean and disinfect computers between uses?
Q1. How long can COVID-19 survive on surfaces?

Though there is some experimental data from lab settings, there is little information about how long COVID-19 can survive on “real world” surfaces at this time. The virus (SARS-CoV-2) that causes COVID-19 cannot grow on inanimate objects or on surfaces, however, the virus may be able to survive for hours to days on different surfaces, although the levels will decline over time. One experiment found that the virus can survive for up to 72 hours, depending on the type of surface it was on. This experiment found that the virus fell to low or non-existent levels after 72 hours on plastic, 48 hours on stainless steel, 24 hours on cardboard and 4 hours on copper. The predominant mode of transmission of COVID-19 is via respiratory droplets during close unprotected contact. The risk of fomite transmission (e.g., touching shared surfaces or inanimate objects, then touching one’s own eyes or mouth) is theoretically possible but there is little empirical evidence to support this as a major mode of transmission.

Q2. How often should environmental cleaning be done for high-touch surfaces and shared spaces?

High-touch surfaces such as door knobs, light switches, desks, keyboards and faucets are recommended to be cleaned and disinfected, at a minimum of twice per day and more frequently, if the surface appears visibly soiled or is a surface that is more frequently touched. Washrooms and eating areas should be cleaned and disinfected at least twice daily. Shared objects, such as physical education equipment, should be limited where possible but cleaned and disinfected between each use. Surfaces within 2 m of a person who develops signs/symptoms of COVID-19 or items used by them are to be cleaned and disinfected as soon as possible.

Q3. What are recommendations for cleaning outdoor school playgrounds?

Outdoor play structures generally do not require either routine cleaning or disinfection unless soiled (e.g., bird or animal feces, vomit, blood, etc.). Guidance from the Centers for Disease Control and Prevention suggest that outdoor areas generally do not require disinfection and existing cleaning practices can continue. Cleaning should only be done for non-porous outdoor surfaces such as steel, plastic, and rubber play structures. Cleaning of wooden surfaces is not recommended. General information on cleaning and disinfecting public spaces are provided in a PHO Fact Sheet on the subject. Evidence also suggests that solar UV radiation may inactivate COVID-19 virus on surfaces.

Q4: Can wipes for liquid crystal display (LCD) screens and other types of monitors be used to clean and disinfect computers between uses?

Shared equipment is to be cleaned and disinfected using a health care grade disinfectant with a drug identified number (DIN). If disinfectant use is not recommended by the manufacturer, consider using screen and keyboard protectors that can be disinfected.
Infection Prevention and Control (IPAC)

This chapter addresses questions related to IPAC practices.

**Q1. What are alternatives to alcohol-based hand rub (ABHR)?**

**Q2. What are the strategies for portable classrooms that have no sink stations?**

**Q3. Can electric hand dryers in the school spread COVID-19?**

**Q4. Can non-medical masks be washed together?**

**Q5. How should students store their non-medical masks when they are removed?**

**Q6. Should students and staff wear a mask during indoor gymnasium/exercise classes?**
Q1. What are alternatives to alcohol-based hand rub (ABHR)?

ABHR is the preferred product for cleaning hands when not visibly soiled. Obtain an approved, commercially-made hand sanitizer. ABHR with a concentration of 60-90% is appropriate for the school setting. Do not add essential oils or other products to the hand sanitizer. Avoid hand sanitizer that does not contain alcohol and those containing technical grade ethanol. Hand washing with soap and running water should be performed when hands are visibly soiled to perform adequate hand hygiene.

Q2. What are the strategies for portable classrooms that have no sink stations?

Where sinks with running water are not available, consider pre-moistened disposable hand wipes to remove visible dirt from hands followed by the use of alcohol-based hand rub (60-90%). ABHR alone is recommended when hands are not visibly soiled. An alternative to ABHR is the installation of portable hand-washing stations.

Q3. Can electric hand dryers in the school spread COVID-19?

While there is a theoretical risk of pathogen dispersion into the air with electric hand dryers, based on the current evidence it seems unlikely that using hand air-dryers poses a risk of spreading COVID-19, particularly when people are masked. Where there is an option to use paper towels, this could be encouraged to reduce dispersal of microorganisms in the environment when compared to air-dryers.

Q4. Can non-medical masks be washed together?

Yes. If using a standard washer, masks should be washed in a single load with labels to prevent accidental sharing of masks. If a sink is used to wash masks, it should first be disinfected and then filled with hot soapy water to wash the masks. Masks should be dried completely before wearing again, and the sink should be disinfected after use.

Q5. How should students store their non-medical masks when they are removed?

Students should be encouraged to wash their hands before putting on their mask, after touching their mask, and after discarding their mask or placing it in storage. Non-medical face masks that need to be removed but are intended to be reused should be stored in a clean paper bag, envelope, or something similar that does not retain moisture. The bags should be labelled with the student’s name and discarded after each use. Consideration could be given to having the students keep their masks (in the paper bags) with them while outside in a waist bag (e.g., fanny pack) or similar. Plastic bags (e.g., sandwich bag) are not recommended to use for mask storage due to possibility of trapping moisture in the bag. Containers being used for mask storage should be cleaned and disinfected daily after each use. Masks that are visibly soiled, damp, damaged, or difficult to breathe through are to be discarded if disposable or should not be used until laundered (if reusable cloth masks).

Q6. Should students and staff wear a mask during indoor gymnasium/exercise classes?

This will depend on numerous factors related to the nature of the activity, local prevalence of COVID-19 infection, and current regulatory/policy requirements. Schools are encouraged to check if there are policies/guidance from provincial or local decision-makers (e.g., Ministry of Health, Ministry of Education, local boards of education) for schools to consider in regards to mask use during indoor gym classes. Observations of COVID-19 transmission in group exercise environments suggest that large class sizes, small spaces, and higher intensity of workouts may increase risk. Other considerations for reducing the risk of COVID-19 transmission during gymnasium/exercise classes include:
- Indoor gymnasiums should only be used when physical distancing of at least 2 metres can be consistently maintained and use of shared equipment and/or shared spaces is limited.
  - Examples of exercise where physical distancing can usually be maintained include yoga, where participants are spaced out by at least 2 metres, and individual skills-building (e.g., dribbling, kicking, strength training).
  - Examples of exercise where physical distancing can be challenging or is not possible include wrestling and team activities/sports (e.g., soccer, basketball).
- Wearing a mask during exercise is most important when physical distancing is difficult, and when exercise type and intensity allows for safe use.
- Students who can comfortably exercise indoors with a mask on should do so for low intensity exercise that does not significantly increase heart rate and breathing (e.g., yoga, stretching).
- Vigorous-intensity exercise should be done outside, where possible. If physical distancing of 2 metres can be maintained while outside, a mask would not be required. Mask use may be tolerable for some individuals during high intensity exercise.
- Staff are recommended to use appropriate personal protective equipment (including masking) while indoors and outdoors when 2 metres physical distancing cannot be consistently maintained.
- Students/staff should practice proper hand hygiene before and after play and/or use of shared equipment. In addition, shared equipment should be cleaned between cohort/group use. Consider use of gym equipment that does not require use of hands, such as agility ladders and pylons.
Personal Protective Equipment (PPE)

This chapter addresses the use of PPE.

Q1: Is a medical mask (with or without a face shield) considered to provide adequate personal protective equipment for a teacher who is a contact of a COVID-19 case?

Q2: Are non-medical masks considered to be PPE?

Q3: Can a face shield be worn without a mask if an individual cannot tolerate a mask?

Q4: When should gloves and/or gowns be worn?

Q5: When should an N95 respirator in a school be used?

Q6: Do teachers need to wear a mask when they are teaching their class if they are able to maintain a > 2 meter distance from students?

Q7: Can the same PPE worn by a staff member be used between students within a cohort (e.g., does a staff member need to change a gown between students)?
Q1: Is a medical mask (with or without a face shield) considered to provide adequate personal protective equipment for a teacher who is a contact of a COVID-19 case?

Face shields (or goggles) are considered a form of PPE and are used to protect the mucous membranes of the eyes, and are intended to be worn in conjunction with a surgical or procedure (medical) mask as PPE for when distancing cannot be maintained, and there is an increased risk from the individual they are exposed to.\(^{36}\)

An individual with consistent and appropriate use of a surgical/procedure mask and eye protection for the duration of the interaction can contribute to a PHU’s assessment that the individual had a low-risk exposure.

An individual with consistent and appropriate use of a surgical/procedure mask AND where the case had consistent and appropriate source control masking for the duration of the interaction can also contribute to a PHU’s assessment that the individual had a low-risk exposure.

As part of the individual risk assessment, consider the cumulative duration and nature of the contact’s exposure (e.g., a longer exposure time or cumulative duration of exposures likely increases the risk; an outdoor only exposure likely decreases the risk, whereas exposure in a small, closed, or poorly ventilated space may increase the risk), the case’s symptoms (e.g., coughing or severe illness likely increases exposure risk), physical interaction, and the likelihood of consistent and appropriate use of masking by the case and the contact over the duration of interaction.

Q2. Are non-medical masks considered to be PPE?

No. Non-medical masks (e.g., cloth masks, or non-medical disposable masks) are not considered PPE, but rather, are used to help protect others from any respiratory infection the wearer may have (the use of masks for this purpose is known as “source control”). If mask use is intended to protect the wearer from potential exposure to respiratory viruses, it could be considered a component of PPE. Masks worn as part of PPE (such as what is used in health care) should always be medical-grade surgical/procedure masks.\(^{37}\)

Q3. Can a face shield be worn without a mask if an individual cannot tolerate a mask?

Face shields are intended to be worn for the purpose of eye protection, in conjunction with a surgical or procedure mask, and are not intended to be a substitute for a mask (either as PPE or a form of source control). The reason for this is that face shields alone are not as effective as a surgical/medical mask along with the face shield as droplets may enter or exit around the sides and bottom of the face shield. In the scenario where a student is exempted from mask use, review of other types of measures they may take may be done on a case-by-case basis in accordance with provincial and school board requirements.\(^{3,36}\)

Q4. When should gloves and/or gowns be worn?

Gloves and gowns are not part of the standard PPE for schools except in those instances where the student is receiving hands-on-care (and physical distancing cannot be maintained) and staff may be exposed to a student’s body fluids such when providing care to an ill child.

Hands should be cleaned before putting on and after removing gloves.\(^{38}\) Gloves should only be worn once (i.e., for a single task) and then discarded. Gloves are not needed if touching frequently touched surfaces (e.g., elevator buttons and door handles). Gloves should never be disinfected and re-used.
Gowns can be either single use/disposable or reusable, however they are to be changed/removed when the interaction/procedure has ended. Reusable gowns should be placed in a leak-proof receptacle, then collected and sent for laundering.

Q5. When should an N95 respirator in a school be used?

N95 respirator masks are not recommended in schools, unless staff are providing care for a student during an aerosol generating medical procedure (AGMP). An N95 respirator is a specialized type of PPE that protects the wearer against very small airborne particles and is only necessary under very specific circumstances (e.g., suctioning a tracheostomy). It must fit the wearer’s face properly and mask fit is assessed in a process called fit-testing, which, where appropriate, is provided by the employer. N95 respirators are one component of “airborne precautions”, used alongside other appropriate PPE with proper training.

Q6. Do teachers need to wear a mask when they are teaching their class if they are able to maintain a > 2 meter distance from students?

The Guide to Reopening Ontario’s Schools states that “all school-based staff will be required to wear masks, with reasonable exceptions for medical conditions.” Teachers are encouraged to wear eye protection (e.g., goggles, face shield) in addition to a mask when physical distancing of 2 metres cannot be consistently maintained.

As a measure of source control and also as personal protective equipment, medical masks are to be worn at all times indoors. Times when a mask may be removed include when eating or drinking if alone in a private space, and outdoors when physical distancing is possible.

Q7. Can the same PPE worn by a staff member be used between students within a cohort (e.g., does a staff member need to change a gown between students)?

Eye protection and masks do not need to be routinely changed between students or cohorts unless they become wet, damaged, or contaminated (i.e., PPE comes into contact with respiratory droplets or other bodily fluids). Hand hygiene should be performed before and after removing facial PPE.

When interacting with students who have signs or symptoms of COVID-19 and physical distancing cannot be maintained, or in situations where contact with body fluids may occur, gowns and gloves (in addition to medical masks and eye protection) are recommended for interactions with students as part of droplet and contact precautions. If the staff member is providing direct care to the student or if physical distancing is not possible, the staff member should change their gowns and gloves between students. However, if the staff member is not in close contact or not providing direct care to the student, then changing gowns would not be necessary. All PPE should be removed when the staff member leaves the isolation area or a high risk cohort, and hand hygiene should be performed upon PPE removal. This will avoid situations where the staff member may have had contact with students across different cohorts, and reduces the risk of transmission if gown and gloves are changed before contact with another symptomatic student.
Source Control

This chapter addresses measures to reduce the spread of COVID-19 to others, known as source control.

Q1. Is a medical mask (with or without a face shield) considered to provide adequate source control if worn by a teacher who is a COVID-19 case?

Q2. Is there a need for students to wear a mask if they are able to maintain physical distancing (keeping > 2 meters apart)?

Q3. Are clear plastic masks an acceptable type of non-medical mask to wear?

Q4. Can source control with medical masks in school settings be considered the same way as health care settings?
Q1. Is a medical mask (with or without a face shield) considered to provide adequate source control if worn by a teacher who is a COVID-19 case?

The issue of what is considered adequate source control is discussed in the Risk Assessment Approach for COVID-19 Contact Tracing and Management of Cases and Contacts of COVID-19 in Ontario. In general, a risk assessment of contacts should consider factors of the case, contacts, and nature of interaction (e.g., the cumulative duration, consistency of distancing/physical interaction, use of barriers, indoor vs. outdoor environment) to help inform determination of risk. Use of PPE (by contacts) and source control (by case) should be considered in the overall context of exposure to make a determination of a contact as having a high or low risk exposure.

Source control will provide some reduction in risk of exposure to contacts depending on the consistency and appropriateness of use. In situations where a HCW is a case and was wearing a medical mask while providing direct care to patients, the patients would generally be considered low risk contacts. This is based on appropriate training and use of the medical mask by the health care worker, and taking into account the duration and type of interaction with the patient as well as the overall environmental controls in a health care setting.

Situations may vary in the school or other community or workplace settings and would require assessment. For example, an asymptomatic teacher with consistent source control masking with a medical grade mask and whom was generally able to maintain physical distancing from students wearing non-medical masks (e.g., lecturing in front of room to seated secondary students for an hour) would present a lower risk of exposure. Whereas, a symptomatic teacher with inconsistent source control masking with a medical grade mask over the course of a full day in a room with inconsistent physical distancing (e.g., such as with younger children), along with inconsistent non-medical mask use by students, would present a higher risk of exposure.

Q2. Is there a need for students to wear a mask if they are able to maintain physical distancing (keeping > 2 meters apart)?

Physical distancing (i.e., maintaining at least 2 metre distance) should be promoted as much as possible between all individuals, regardless of their role. Masks should be worn when physical distancing cannot be maintained. As per provincial requirements, students in grades 4 to 12 are required to wear non-medical masks while indoors in school, including in hallways and during classes. Outdoor times like recess can be used as opportunities to provide students with breaks from wearing masks within their cohorts. As per provincial requirements, students in kindergarten to grade 3 will be encouraged but not required to wear non-medical masks in indoor spaces; some school boards will have different policies and require the use of non-medical masks by students younger than grade 4.

Q3. Are clear plastic masks an acceptable type of non-medical mask to wear?

Clear plastic masks may have gaps between the mask and the face, particularly around the nose and the top of the mask. Any non-medical mask that does not fit closely to the face and cover the nose, mouth, and chin, likely does not provide adequate covering for source control. Non-medical masks are not considered PPE.
Q4. If staff in a school setting are wearing medical masks and exposed to COVID-19, should their risk of exposure be considered in the same way exposure in a health care setting would be, where individuals are wearing medical masks?

Refer to [Management of Cases and Contacts of COVID-19 in Ontario](#) for information on the use of PPE in community and workplace settings other than health care settings. As part of the risk assessment done for cases and contacts in health care settings, it is assumed that health care workers have training on the appropriate use of PPE and consistently use PPE. Typically in health care settings, there is universal appropriate and consistent use of masks among health care workers, environmental controls, and contacts are often wearing medical masks. This is often sufficient to consider the health care worker as a low risk of exposure to others. Outside of health care settings, workers are likely to have less training on appropriate use of PPE, may be less likely to wear PPE consistently, often have a more prolonged duration of exposure (e.g. full day class with shared air space), and there may not be the same level of environmental controls in non-health care settings. The [Risk Assessment Approach for COVID-19 Contact Tracing](#) provides detailed information on conducting a risk assessment for contacts and classifying them as high risk or low risk.
Case Management

This chapter provides information on case management.

Q1. How do we manage a student/staff who develops symptoms of COVID-19 at school?

Q2. Do all students with symptoms of COVID-19 require testing?

Q3. What specimen collection kits can be used in children to test for COVID-19 and what sites can specimens be taken from?

Q4. In a scenario where a teacher with COVID-19 who worked during their period of communicability and was wearing a medical-grade mask while at work, are their contacts (e.g. students) considered to have had a high-risk exposure?

Q5. If a staff member or student has previously had laboratory confirmed COVID-19 infection, and later develops symptoms of COVID-19 again, do they need to be sent home?

Q6. How should symptomatic persons with a high-risk exposure, but who don’t have a positive result, be managed in a school setting?
Q1. How do we manage a student/staff who develops symptoms of COVID-19 at school?

Ill individuals should not attend school. Students and staff must screen for symptoms of illness every day before school. Students who develop symptoms of COVID-19 while at school should be provided with a medical mask, immediately separated from others, and directed to the designated isolation space until they are able to be picked up by a parent/guardian. It should be ensured that staff providing care and supervision to the ill student have access to appropriate PPE and maintain as much physical distancing from the student as possible. Staff members and essential visitors who develop symptoms of COVID-19 while at school should be provided with a medical mask (if not already wearing one), report their symptoms to their supervisor, and leave the premises immediately.³

Q2. Do all students with symptoms of COVID-19 require testing?

Parents and guardians are required to screen their children for symptoms of illness every day before school using the COVID-19 School Screening Tool.⁴ Not all students with a single symptom will require testing. The tool provides specific advice to parents/guardians and students regarding what to do (e.g., stay home from school, consult with a health care provider, etc.) based on the symptoms the student is reporting.

Q3. What specimen collection kits can be used in children to test for COVID-19 and what sites can specimens be taken from?

In addition to testing performed on nasopharyngeal swabs, there are several alternative specimen collection kits for COVID-19.⁴² The pediatric midturbinate swab (Copan CA56750CS01) can be used for pediatric patients (except in neonates as it is too wide for this age group).⁴² If a Copan CA56750CS01 swab is not available, an alternative site can be used for specimen collection such as nasal or deep nasal, as long as the swab tip fits in the child’s nose. Alternatively a throat collection can be done. The combined oropharyngeal/throat and anterior nares/nostril specimen approximates the sensitivity of the NP swab and may be a more acceptable alternative to children.⁴³,⁴⁴

Q4. In a scenario where a teacher with COVID-19 who worked during their period of communicability and was wearing a medical-grade mask while at work, are their contacts (e.g. students) considered to have had a high-risk exposure?

A risk assessment of contacts done by the PHU should consider factors of the case, contacts, and nature of interaction (e.g., the cumulative duration, consistency of distancing/physical interaction, use of barriers, indoor vs. outdoor environment) to help inform determinations of risk.⁵ Use of PPE (by contacts) and source control (by case) should be considered in the overall context of exposure to make a determination of a contact high or low risk exposure. Source control will provide some reduction in risk of exposure to contacts depending on the consistency and appropriateness of use. For example, an asymptomatic teacher with consistent source control masking with a medical grade mask and whom was generally able to maintain physical distancing from students wearing non-medical masks (e.g., lecturing in front of room to seated secondary students for an hour) would present a lower risk of exposure. Whereas, a symptomatic teacher with inconsistent source control masking with a medical grade mask over the course of a full day in a room with inconsistent physical distancing (e.g., such as with younger children) and inconsistent non-medical mask use by students, would present a higher risk of exposure.
Q5. If a staff member or student has previously had laboratory confirmed COVID-19 infection, and later develops symptoms of COVID-19 again, do they need to be sent home?

We are still learning about the potential for re-infection, and this should not affect how individuals with new symptoms of COVID-19 are managed in schools. The Ministry of Health’s COVID-19 Self-assessment Online Tool should be completed and directions of the assessment tool followed, which may include COVID-19 testing and/or health care provider advice obtained.

Q6. How should symptomatic persons with a high-risk exposure, but who don’t have a positive result, be managed in a school setting?

Examples of scenarios include:

- Symptomatic individual with high-risk exposure and test results pending;
- Symptomatic individuals with an indeterminate result;
- Symptomatic individual with high-risk exposure but tests negative.

In some cases where there is a high index of suspicion that an individual may be a COVID-19 case (such as high-risk contact who develops symptoms consistent with COVID-19), but where testing is either not available or is pending, it would be reasonable to proceed with public health management as if the individual was a probable case – including dismissal of the cohort as a precaution (only necessary if the child had been in the class in the period of communicability, e.g. in the 2 days prior to their symptom onset).

If the child subsequently tests negative, a risk assessment may be required to determine if that represents a true negative and public health management can be discontinued or whether it could represent a false negative (e.g., too early in illness, inadequate specimen) based on the pre-test probability of the individual (based on their symptoms and degree of contact with the confirmed case). Continuation of public health management despite a negative test (i.e., continuing to manage as a probable case) is appropriate in some circumstances if there is a high pre-test probability.
Contact Management

This chapter provides information on contact management.

Q1. If a teacher is exposed to COVID-19 but was wearing a medical mask with eye protection (face shield or goggles), would that change their close contact status from high risk to low risk?

Q2. If there is a positive case in a cohort, do all students in that cohort need to be dismissed?

Q3. If there is a case in a student, what risk level are other students who are not in their cohort and whom the case interacted with only while outside during recess?

Q4. If there is a case on a school bus, will school bus staff (e.g., bus driver) be required to self-isolate?

Q5. How do we manage contacts who were on the same bus (school bus, public bus) as a case of COVID-19?

Q6. How do we manage individuals who were not on a bus at the same time as a case, but were on the same bus after a case of COVID-19 has disembarked?
Q1. If a teacher is exposed to COVID-19 but was wearing a medical mask with eye protection (face shield or goggles), would that change their close contact status from high risk to low risk?

Use of a surgical/procedure mask and eye protection is one element to be considered as part of a risk assessment in conjunction with other factors, such as nature of a contact’s exposure (whether there were any unprotected exposures or unprotected contact with body fluids) as well as whether the individual wore the PPE consistently and appropriately (including proper donning and doffing). For example, if the PHU had concerns about the contact’s consistency and appropriateness of their PPE use during the exposure period (e.g., inconsistent mask wearing, wearing a mask incorrectly such that it did not cover nose and mouth, excessive face touching, issues with donning and doffing mask and/or eye protection), they may consider the contact to be at a higher risk of exposure.

Q2. If there is a positive case in a cohort, do all students in that cohort need to be dismissed?

As part of contact management, local PHUs have discretion when conducting a risk assessment to determine which contacts require self-isolation. When considering dismissal of a case’s cohort(s) for self-isolation, current guidance allows local PHUs to make recommendations on dismissal and testing a case-by-case basis (e.g., making a more limited dismissal than a full cohort if it was determined that the case acquired their infection outside of school and had limited contact with the school while infectious). Part of the rationale for conducting a cohort-level risk assessment in schools is that it may be difficult – particularly in younger cohorts – to confirm how closely and how frequently individuals in the cohort had interactions with each other while at school, for example, at time of school entry, on transportation, in the classroom, and during break times. Additionally, for reasons of timeliness or privacy considerations it may be necessary to exclude an entire cohort, especially while a risk assessment is being conducted.

Q3. If there is a case in a student, what risk level are other students who are not in their cohort and whom the case interacted with only while outside during recess?

In general, if the only interaction a single case in a school has with another cohort is outdoors during recess/break time, and assuming all were unmasked, sharing the same area, and interactions <2 metres apart between students were unlikely to be prolonged (e.g., kids were running around), this is likely a low risk exposure.

However, if the case had specific friends/playmates in another cohort with whom they may have had closer or more prolonged interactions at recess/break time (e.g., played closely with for a whole recess, or multiple recesses), these may be assessed as high risk exposures. Each situation merits its own risk assessment to consider the various factors that might increase/decrease risk. Other factors to consider could include:

- Were there any particular activities or interactions that might have promoted close, prolonged, or higher risk contact?
- Did the physical space generally enable movement and/or physical distancing?
- Did students practice hand hygiene before/after recess?

Q4. If there is a case on a school bus, will school bus staff (e.g., bus driver) be required to self-isolate?

A risk assessment of contacts by the PHU should consider multiple factors related to the case, contact, and nature of interaction, such as cumulative duration (length of bus ride), consistency of
distancing/physical interaction, use of barriers (e.g., plexiglass to separate bus driver from students), and seating plans (including adherence to seating plans) to establish distance of case from others on the bus. Assessment of these factors should help inform determination of risk.5

As per Ministry of Education policy, school bus drivers, monitors, and aides should wear a medical mask and appropriate eye protection (e.g., goggles, face shields), particularly during student boarding and exiting when physical distancing may not be possible, and if a physical barrier (i.e., plexiglass) separating the driver from students is not in place. In addition, to decrease possible exposure to school bus staff, where possible, the seat directly behind the school bus driver should remain vacant to promote physical distancing and windows should remain open to increase ventilation (where feasible, when safe, and weather permitting).3 In general, a bus driver who is appropriately and consistently wearing PPE, maintains a physical distance of 2 metres from the case, and has the window open, would likely be classified as a low risk contact.

Q5. How do we manage contacts who were on the same bus (school bus, public bus) as a case of COVID-19?

Contacts exposed on a conveyance should be managed as per the Management of Cases and Contacts of COVID-19 in Ontario.5 Students should be assigned a seat, and a copy of the seating plan should be saved in order to facilitate contact tracing. In general, individuals who were seated within 2 metres of a case (approximately two seats in all direction) are considered high risk exposures. A risk assessment should be conducted to determine whether other students on the bus may be considered high risk contacts due to prolonged exposure (> 15 minutes) while not physically distanced, direct contact with the case, and/or lack of ventilation on the bus (e.g., windows not opened).

Q6. How do we manage individuals who were not on a bus at the same time as a case, but were on the same bus after a case of COVID-19 has disembarked?

The primary route of COVID-19 transmission is person-to-person through respiratory droplets, with no clearly documented COVID-19 cases attributed to transmission via shared surfaces. However, frequently touched surfaces (e.g., doors, seat backs, hand rails etc.) should nevertheless be cleaned and disinfected at least twice daily and additionally between routes, if feasible. Students should practice hand hygiene with an ABHR (60-90%) on entry and exiting of the bus. Generally, for contact management purposes, individuals who only ride a bus after the case has disembarked should not be considered contacts of a case of COVID-19.
Outbreak Management

This chapter provides recommendations for outbreak management.

**Q1.** What are the criteria for declaring an outbreak in a school?

**Q2.** When should whole school dismissal be considered?

**Q3.** What are recommendations for a school where an outbreak has been declared?

**Q4.** How can we declare a school outbreak over if not everyone in the dismissed cohort is tested?
Q1. What are the criteria for declaring an outbreak in a school?

An outbreak in a school is declared when there are two or more lab confirmed COVID-19 cases among individuals in a school (e.g., students, staff, visitors) with an epidemiological link within a 14-day period, where at least one case could have reasonably acquired their infection in the school (including transportation and before/after school care). Acquisition in the school setting does not have to be proven, only suspected or possible, in order to declare an outbreak.

For the purposes of declaring an outbreak, the individual(s) should have attended a physical school site during the acquisition period, as opposed to only being connected to a school through online/virtual learning.

Examples of situations where a case may have reasonably acquired an infection at school, and where it would be reasonable to declare an outbreak, include:

- An individual with no obvious source of infection outside school (i.e., no exposure to a known case outside of school) OR
- There is a known exposure at school or there is a possible exposure at school without any other known source of infection (could be a high or low risk exposure).

Q2. When should whole school dismissal be considered?

Whole school dismissal is at the discretion of the PHU. School dismissal may be considered in instances when there is evidence or concern about potential widespread transmission within the school, or when investigation is required, such as to determine sources of infection and transmission. Examples of when school dismissals may occur include multiple cohorts being dismissed based on case and contact management, or multiple cases in students, staff, or visitors with no known acquisition outside of the school or obvious epidemiological links in the school.6

Q3. What are recommendations for a school where an outbreak has been declared?

All staff and students who attend a school that is currently in an outbreak, but who have not been identified as close contacts of a case, should self-monitor closely for symptoms of COVID-19. Outbreak measures in a school may be scaled up or down based on the transmission risk and outbreak epidemiology in the school, as well as assessment of outbreak control measures (e.g., from dismissal of a single cohort through to consideration of school closures). Outbreak measures – particularly if the school remains open – may include:

- Outbreak signage at entrances and affected area;
- Informing outside agencies that use the school/daycare of the outbreak;
- Only allowing essential visitors into the school;
- Further minimizing the movement of staff between cohorts;
- Limiting student activities to their required cohorts and discontinuing extra-curricular activities, as much as possible;
- Restricting all staff (including school, transportation, staff from home care agencies or others that provide medical services to those in school) from working in other schools;
For social settings outside of the school, recommend adherence to social bubble to staff, students, and their families (with bubble size based on current provincial recommendations).

Q4. How can we declare a school outbreak over if not everyone in the dismissed cohort is tested?

As per the COVID-19 Guidance: School Outbreak Management, a school outbreak can be declared over when at least 14 days have passed with no evidence of ongoing transmission that could reasonably be related to exposures in the school AND there are no further ill individuals associated with the initial exposed cohorts with tests pending.6

Individuals who are dismissed as part of a cohort would be considered close contacts of the case and would be followed through contact follow-up. They would be asked to report on whether they develop signs or symptoms of COVID-19 and directed to get tested. If symptomatic individuals in the dismissed cohort have tests pending, outbreak measures should be continued until their test results are available. Asymptomatic individuals advised to be tested as a high-risk exposure contact, and who did not get tested but remained asymptomatic for their quarantine period, would not delay the declaration of the outbreak being over.
Return to Work/School

This chapter provides information about returning to work/school.

Q1. When can a student or staff member who had COVID-19 return to school/work?

Q2. Do students or staff members who tested positive for COVID-19 require a proof of a negative test before they can return to school/work?

Q3. When can students or staff return to school if they have had symptoms of COVID-19 and tested negative?

Q4. When can students or staff return to school if they have had symptoms of COVID-19 but are not tested?

Q5. Are staff or students with symptoms that are related to other known causes or conditions required to be tested and/or isolated?
Q1. When can a student or staff member who had COVID-19 return to school/work?

Students or staff members who are a confirmed or probable case can return to school/work after they have been discharged from isolation by public health, in accordance with the COVID-19 Quick Reference Public Health Guidance on Testing and Clearance. 46

Q2. Do students or staff members who tested positive for COVID-19 require a proof of a negative test before they can return to school/work?

Staff are not required to provide proof of a negative test result to their employers in order to return to work. It is expected that workers who have tested positive abide by public health direction and advice on when they would be considered cleared from isolation, and thus, able to return to work.

Proof of a negative test result is also not required for students. Individuals who are a confirmed or probable COVID-19 case can discontinue isolation and return to school based on direction from their local PHU; they do not require medical/public health documentation to return to school. PHUs will clear a case from isolation in accordance with the COVID-19 Quick Reference Public Health Guidance on Testing and Clearance 46; clearance from isolation is based on time since symptom onset or positive specimen collection (if asymptomatic), not on a negative result.

Q3. When can students or staff return to school if they have had symptoms of COVID-19 and tested negative?

Management of students or staff with COVID-19 symptoms and their return to school is outlined in the COVID-19 Guidance: School Outbreak Management. 6 Individuals with symptom(s) compatible with COVID-19 that are new, worsening, or different from baseline (e.g., not related to other known causes or conditions), should be directed to the appropriate screening/self-assessment form for children attending school and child care 47 or for adults 45 and follow instructions applicable to their circumstance. If after completing the screening/self-assessment and/or after an assessment by a health care provider, testing for COVID-19 was completed and determined to be negative, return to school is dependent on the exposure risk:

If the symptomatic individual has had a high-risk exposure (e.g., close contact with a confirmed case, travel out of country in the last 14 days) then they should remain in self-isolation for the 14 day incubation period from the last exposure. If symptoms are persisting or worsening they should be re-tested, as they could have been tested too early in the course of infection, or had a false negative.

If the symptomatic individual has not had a high-risk exposure and were not advised by the PHU or a health care provider to self-isolate then they can return to school once they are afebrile and symptoms are improving for at least 24 hours. 6

Q4. When can students or staff return to school if they have had symptoms of COVID-19 but are not tested?

Management of students or staff with COVID-19 symptoms and their return to school is outlined in the COVID-19 Guidance: School Outbreak Management. 6 Individuals with symptom(s) compatible with COVID-19 that are new, worsening, or different from baseline (e.g., not related to other known causes or conditions), should be directed to the appropriate screening/self-assessment form for children attending school and child care 47 or for adults 45 and follow the instructions applicable to their circumstance. If testing is not completed, guidance on return to school is dependent on the individual’s situation and may include:
• If the symptomatic individual has had a high-risk exposure (e.g., close contact with a confirmed case) then they should remain in self-isolation and be managed as per public health case and contact management guidance (i.e., as a probable case).\textsuperscript{5} Return to school is based on clearance from isolation.\textsuperscript{46}

• If there is a known alternative diagnosis provided by a health care provider, return to school can occur once they are afebrile and symptoms are improving for at least 24 hours.

• If there is no known alternative diagnosis and the ill individual has symptoms compatible with being recommended for testing for COVID-19, but does not get tested, the individual should self-isolate from symptom onset based on guidance for clearance of cases from isolation.\textsuperscript{46}

Q5. Are staff or students with symptoms that are related to other known causes or conditions required to be tested and/or isolated?

There are many symptoms of COVID-19 that can overlap with other viral respiratory illnesses (e.g., influenza, RSV) or chronic medical conditions (e.g., asthma, allergic rhinitis). In order to minimize school outbreaks and limit community transmission, it is important to identify and isolate children with COVID-19. Children who develop a symptom (or symptoms) compatible with COVID-19 that is new, worsening, or different from their baseline (e.g., not related to other known causes or conditions), should be directed to the COVID-19 School and Child Care Screening Tool\textsuperscript{47} to guide further management.

Children who have chronic or regular symptoms that are not worse or different than their usual, and whom are related to known causes, do not require testing or isolation. Examples include:

• Cough or shortness of breath due to asthma

• Stuffy or runny nose due to seasonal allergies or returning inside from the cold

• Diarrhea caused by irritable bowel syndrome or inflammatory bowel disease

If a parent/guardian is not sure whether their child’s symptom(s) are related to a known cause or condition, they should be assessed by a health care provider.
Ventilation

This chapter includes information about ventilation.

Q1. Should a window fan be set to blow the outside air into the classrooms or blow classroom air outdoors?

Q2. Should High-efficiency particular air (HEPA) filters be used in classrooms?

Q3. Can HVAC (heating, ventilation, and air conditioning) systems in schools play a role in the transmission of COVID-19?
Q1. Should a window fan be set to blow the outside air into the classrooms or blow classroom air outdoors?

Directing classroom air outside is preferred, to improve exhaust and to enable airflow away from individuals and other rooms. Air currents created by fans or air conditioning and HVAC systems could affect the movement of respiratory droplets in the air; hence, directing airflow to avoid moving air from one person to another may reduce risk. To minimize potential propagation of droplets between individuals, fans should not be placed at typical breathing height (e.g., the level of the head).

Q2. Should High-efficiency particulate air (HEPA) filters be used in classrooms?

High-efficiency particulate air (HEPA) air cleaners provide air filtration and differ from ventilation. While in theory HEPA filtration could reduce COVID-19 particles in the air, there have been no studies published to date demonstrating the effectiveness of portable HEPA air cleaners in reducing COVID-19 transmission. In general, for a HEPA filter to be effective, placement in the room – taking into account distance from the individual(s) as well as the height of the intake – is important as droplets may not be captured if it is positioned too far from the individual(s) generating droplets. Some HEPA filters may generate strong air currents within a room, and as such, care should be taken so that any air currents generated do not move air from one individual to another. If available, optimizing ventilation (e.g., opening windows) can also provide the end goal of exhausting indoor air and bringing in fresh outdoor air.

Q3. Can HVAC (heating, ventilation, and air conditioning) systems in schools play a role in the transmission of COVID-19?

While there is plausibility of COVID-19 transmission by inhaled virus in the air – particularly in crowded and/or poorly ventilated settings – there is limited epidemiological evidence that HVAC systems alone (and particularly via air ducts to other areas of a building) are responsible for COVID-19 transmission. “Poor ventilation” has been cited as one of several elements (e.g., lack of physical distancing, type of activities among individuals, etc.) thought to contribute to increased risk of COVID-19 transmission. Although viral RNA has been detected in air and HVAC systems, the viability of virus in or infection from air circuated through HVAC systems has not been demonstrated.
References


